

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Harold Trick	
Serial No.:	10/616,390	Group No.: 1638
Filed:	07/09/2003	Examiner: Ibrahim
Entitled:	COMPOSITIONS AND METHODS FOR CONTROLLING PARASITIC NEMATODES	

**REQUEST FOR CONTINUED EXAMINATION AND
RESPONSE TO FINAL OFFICE ACTION MAILED
APRIL 17, 2007**

EFS WEB-FILED
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Dr. Harold Trick, state as follows:

1. My present position is Associate Professor, Department of Plant Pathology, Kansas State University, Manhattan, KS.
2. I am an inventor of the above referenced patent application.
3. It is my understanding that the Examiner has stated that neither the specification of the patent application or the prior art identifies the major sperm protein, RNA polymerase II gene, and chitin synthase gene as embryonic lethal phenotype genes. This is not true with respect to RNA polymerase II and chitin synthase. Chitin synthase is identified in the specification as embryonic lethal on page 56, lines 5-7. Literature references also identify chitin synthase as embryonic lethal. See, for example, Johnston et al., BMC Biology 4:35 (2006)(attached at Tab 1). RNA polymerase is a well known embryonic lethal phenotype. See, for example, Table 1 in Zipperlin et al., EMBO J., 20(15):3984-92 (2001)(attached at Tab 2).

4. The present specification contains numerous examples of nucleic acids and embryonic lethal phenotype genes that can be used in the claimed inventions. Table 1, pages 35-37, provides multiple sequences from chitin synthase and RNA polymerase II that can be utilized. As established in paragraph 3 above, these are embryonic lethal phenotype genes. The specification further identifies a number of other embryonic lethal phenotype gene on page 37 and in Table 2, page 37-38, including F18C12.2a, T01G9.4, T01G9.5, T01G9.6a, F52B5.6, D1081.8, and dhc-1. Additionally, other embryonic lethal phenotype genes were known in the art, for example, the 147 embryonic lethal phenotype genes described in Zipperlin et al., attached at Tab 2.

5. A person of skill in the art of plant pathology, upon reviewing the specification of the present patent application would be able to identify and use embryonic lethal phenotype genes as specified in the claims. The person of skill in the art would recognize that there were numerous embryonic lethal phenotype genes that were known in the art that could be used. For purposes of this declaration, a person of skill in the art has from 2-6 years of post-doctoral research experience in plant pathology.

6. The Examiner states that “neither the instant specification nor the prior art describes a structural element specific to all *H. glycines* embryonic lethal phenotype genes that define a function essential for embryonic survival of the nematode, which would allow one to predictably determine the members of the genus of the nucleic acids as encompassed in the instant claims.” This statement, as I understand it, is not scientifically correct. The specification provides multiple examples of embryonic lethal phenotype genes and sequences. The structure of these genes is known and described to one of ordinary skill in the art. The genes each have different, known structures and have been shown to have an embryonic lethal phenotype when disrupted. That is all the structural information a person of skill in the art needs to practice the invention.

7. The Examiner further states that the genes are “not a representative sample, given that the genus is large and encompasses genes yet to be identified for lethality.” While it is true that other genes might be identified, the specification provides a large number of examples of genes that could be used. Based on the identification of the genes in the specification, a person or

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ordinary skill in the art could readily identify other embryonic lethal genes of use in the invention and would recognize that a representative number of genes has been provided.

8. One skilled in the art, upon reading the present specification, would have sufficient knowledge to generate, for example, embryonic lethal phenotype gene RNAi constructs that can be used as taught in the specification.

9. I further declare that all statement made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: July 11, 2008

Dr. Harold Trick